

KAJIAN PROTEIN IMUNOGENIK MEMBRAN LUAR
KUMAN *Salmonella pullorum* DENGAN UJI PROTEKTIF
TERHADAP AYAM PETELUR

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui sifat imunogenitas protein dari outer membrane protein kuman *Salmonella pullorum* sebagai bahan vaksin subunit dan kemampuan daya protektif ayam terhadap infeksi kuman *Salmonella pullorum* sebagai penyebab penyakit pullorum (Penyakit Berak Kapur = *Baccillary White Diarhae*).

Penelitian ini merupakan penelitian eksperimental laboratories, data dianalisis secara statistik. Ayam petelur diberi vaksin subunit (outer membrane protein = OMP, kuman *Salmonella pullorum*), dilakukan booster satu kali pada hari ke 21 setelah pemberian vaksin dan diujiantang (disuntik suspensi kuman *Salmonella pullorum*) hari ke 28. Pengambilan darah dilakukan sejak hari pertama sebelum penyuntikan vaksin subunit. Selanjutnya pengambilan darah dilakukan pada hari ke 7, 14, 21, 28, 35 dan 42, kemudian dilakukan pengukuran titer antibod ayam metode Elisa tak langsung.

Hasil penelitian menunjukkan bahwa pemberian protein imunogenik (Outer Membrane Protein = OMP) dengan adjuvant Freund's komplit mampu menimbulkan respon imun dengan titer tinggi dan dapat bersifat protektif ($\pm 60\%$) terhadap infeksi kuman *Salmonella pullorum*, dan $\pm 40\%$ ayam hanya menunjukkan gejala klinis ringan berupa berak kapur.

Kata kunci : Protein OMP, *Salmonella pullorum*, vaksin subunit, respon imun, daya protektif.

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IMUNOGENIC PROTEIN STUDY OF OUTER MEMBRANE
Salmonella pullorum WITH PROTECTIVE TEST AGAINST BROILER

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ABSTRACT

The goals of this research was to know immunogenic protein from Outer Membrane Protein (OMP) *Salmonella pullorum* as subunit vaccine can be immune respons stimulants and also protective against pullorum disease.

Subunit vaccine OMP applicated to broiler and 1st booster at 21st days post vaccinal and then challenge test at 28th days with suspense bacteria of *Salmonella pullorum*. The work was done is antibody titter with Indirect Elisa methods. The measurement of antibody titter from broiler samples 1st day, 7th, 14th, 21st, 28th, 35th, and 42nd day.

The result of this research shown that sub unit vaccine of protein OMP is immunogenic, high antibody titter and protective (60%).

Conclusion of this research was success in vaccination programs and specific immunogenic protein of OMP *Salmonella pullorum* can recommended to develop as subunit vaccine pullorum.

Key words : Protein OMP *Salmonella pullorum*, specific immunogenic, high antibody titter and good protectivity.